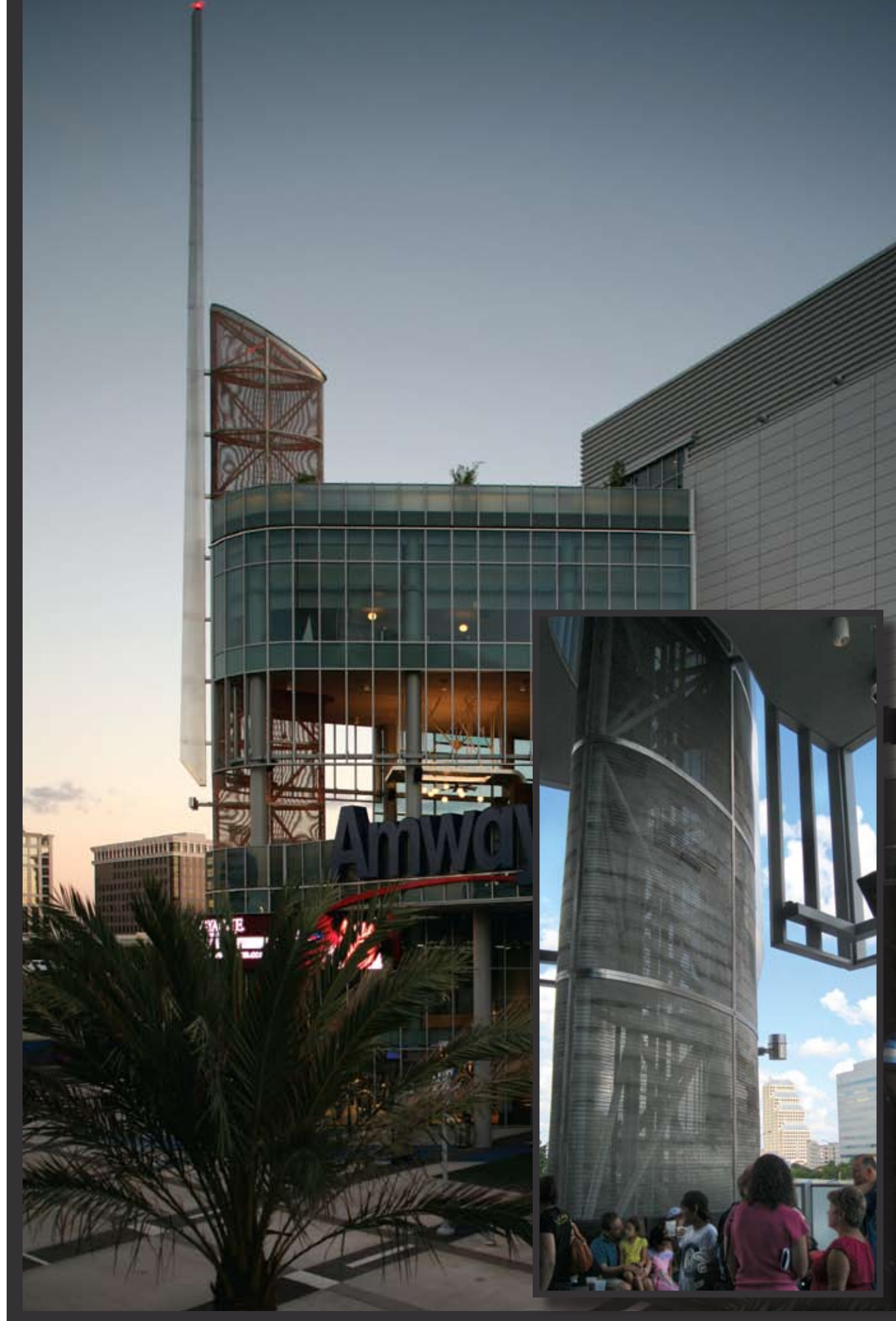


Making Magic

Stainless-steel mesh tower is an iconic landmark at Orlando's NBA arena



Situated at the most visible corner of the recently opened \$480 million sports arena that is home to the Orlando Magic NBA team is an iconic elliptical tower constructed of highly decorative stainless-steel wire mesh from McNICHOLS Co. The egg-shaped tower stands 120 feet (37 m) high at the curved end of a multilevel glass structure that extends prominently from the arena's northeast corner and is capped by a 60-foot (18-m) steel tube needle wrapped in stainless steel sheets, reaching a total of 180 feet (55-m) into the air.

Piercing through five levels of the glass structure, the wire mesh column is illuminated at night with 200 LED lights placed in horizontal bands around the inside of the mesh, resulting in dancing light visible throughout downtown Orlando, especially along Interstate 4, the major thoroughfare that skirts the north side of the arena. By day the wire mesh, with its highly decorative braided threads, catches natural light from various angles, producing a subtle shimmer when viewed close up.

The architect, Populous, chose the stainless-steel wire mesh from McNICHOLS Designer Metal collection because of its intricate details and large open weave. The Aura 8856+ mesh product has elaborate triple weaves with polished top edges that lace through stainless-steel rods, producing a 42.3 percent open area.

Brad Clark, AIA, design architect, wanted to endow the iconic tower with a lighting effect that would stand as a memorable visual marker in the city. The multifaceted stainless wire mesh was the right vehicle to produce the look of motion.

On the east side, the tower dramatically reveals itself when approached from under the Interstate highway. From downtown Orlando, it strikes an impressive pose as it emerges above the elevated thoroughfare.

"Our idea was to create a beacon," Clark said. "We studied many ways to do that, and decided LED with the wire mesh made sense for the intensity we needed, and it gave the opportunity for color change."

The tower runs continuously through each level of the glass structure, so it is visible from every floor, including the ground floor retail shop where it penetrates the ceiling, producing a lighting effect within the store. From there, it climbs vertically through the exterior terrace bar and hospitality level and upward to the

open-air sky bar that sits on the top floor. The LED lights are programmed to produce a series of colors that, when viewed through the braided mesh, emits a glow of radiant colors and patterns that can be changed based on the event.

The finished tower, which measures 44 feet (13 m) around the ellipse—22 feet (7 m) on each side—is made from 52 individual 10-by-10-foot (3-by-3-m) wire mesh panels that are bent to form the elliptical curve.

The design team worked with an architectural lighting design firm, Derek Porter Studio, to build a mock up to experiment with different patterns of wire mesh. By building a rectangular frame to hold two panels of 2-by-8-foot (0.6-by-2.4-m) wire mesh—one in front of the other as they would appear on the tower—they could place lighting behind each panel to determine its effect at various angles and distances.

The orientation of the crimping in the woven mesh catches more light than the rods, so there's a subtle banding effect that's more obvious the closer one gets to the material. "You see higher intensity when you look through one surface to another," Clark said. "When it came to lighting, building a mock-up was the only way to be sure you have it right."

According to Clark, the idea was to produce an image of iconic proportions that captures the essence of Orlando today and how it will look and feel in the future. "We wanted something memorable and contemporary that represents the city and the central Florida region as it continues to evolve. Overall, the effect is fantastic." [MCH]

**Amway Center,
Orlando, Fla.**

**Architect: Populous,
Kansas City, Mo.**

**Associate architect: C.T. Hsu + Associates,
Orlando**

**Architectural lighting design: Derek Porter
Studio, Kansas City, Mo.**

**Wire mesh: McNICHOLS Co.,
Tampa, Fla.,**

www.mcnichols.com, Circle #50